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09/960,623	09/20/2001	Omar C. Baldonado	24717-708	4307

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EXAMINER
VU, THONG H

ART UNIT	PAPER NUMBER
2142	

DATE MAILED: 10/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11 September 2006*.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-23* is/are pending in the application.

     4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

     a)☐ All   b)☐ Some * c)☐ None of:

       1.☐ Certified copies of the priority documents have been received.

       2.☐ Certified copies of the priority documents have been received in Application No. _____.

       3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

     * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
     Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
     Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

1.   Claims 1-23 are pending. Claims 1,14 and 23 have been amended. The Final

action is appropriate.

2.   This application claimed benefit of 60/241,450 filed 10/17/2000.

Response to Arguments

3.   Applicant's arguments filed 5/02/06 with respect to claim 1-23 have been

considered but are moot in view of the new ground(s) of rejection.

Double Patenting

4.   The nonstatutory double patenting rejection is based on a judicially created
doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the
unjustified or improper timewise extension of the "right to exclude" granted by a patent
and to prevent possible harassment by multiple assignees.   A nonstatutory
obviousness-type double patenting rejection is appropriate where the conflicting claims
are not identical, but at least one examined application claim is not patentably distinct
from the reference claim(s) because the examined application claim is either anticipated
by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140
F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29
USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir.
1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422
F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163
USPQ 644 (CCPA 1969).
        A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d)
may be used to overcome an actual or provisional rejection based on a nonstatutory
double patenting ground provided the conflicting application or patent either is shown to
be commonly owned with this application, or claims an invention made as a result of
activities undertaken within the scope of a joint research agreement.
        Effective January 1, 1994, a registered attorney or agent of record may sign a
terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with
37 CFR 3.73(b).

        Claim 1-23 are provisionally rejected on the ground of nonstatutory double

patenting over claims 1-22 of copending Application No. 09/923,924. This is a

provisional double patenting rejection since the conflicting claims have not yet been

patented.

The subject matter claimed in the instant application is fully disclosed in the

referenced copending application and would be covered by any patent granted on that

copending application since the referenced copending application and the instant

application are claiming common subject matter, as follows:

('924) 1. A method of routing a data flow traversing one or more routers in an
internetwork, wherein the one or more routers are coupled to a plurality of service
provider access links, the method comprising:
        determining a prefix (i.e.: preseleted information) for the data flow;
calculating a plurality of performance scores for the plurality of service provider access
links, each of the plurality of performance scores indicating performance of a route from
a router of the one or more routers to the prefix via a distinct service provider access
link from the plurality of service provider access links;
        detecting a current service provider access link for the prefix, the current service
provider access link corresponding to a current route to the prefix specified by a routing
protocol, the current service provider access link having a performance score from the
plurality of service provider access links; and
        selecting a new service provider access link from the plurality of service provider
access links for routing the data flow to the prefix, wherein the new server provider
access link has a performance score from the plurality of performance scores superior
to the performance score for the current service provider access link.

5.   (Application) 1. A communications back-channel (i.e.: back end), for coordinating
routing decisions, the communications back channel comprising:
        a plurality of networking devices;
        a plurality of routing intelligence units (i.e.: intelligent disk systems), wherein each
of the plurality of the plurality of routing intelligence units includes software for
controlling a distinct subset of the plurality of networking devices (i.e: configure or
calculate the prefix via a distinct service provider; detecting the current service link for
prefix specified by router configuration), each of the plurality of routing intelligence units
further including:
        one processes for controlling the distinct subset of networking devices; and
        one coordination processes for generating and directly exchanging routing
performance information with the plurality of routing intelligence units (i.e.: selecting a
new service provider access link from the plurality of service provider access links for
routing the data flow to the prefix)

Furthermore, there is no apparent reason why applicant would be prevented from

presenting claims corresponding to those of the instant application in the other

copending application.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-13 are rejected under 35 U.S.C. 102(e) as anticipated by Ahuja et al

[Ahuja, 6,981,055 B1].

6.   As per claim 1, Ahuja discloses A communications back-channel (i.e.: back end),

for coordinating routing decisions, the communications back channel comprising:

a plurality of networking devices [Ahuja, clusters, col 6 lines 39-56; routers,

switches, Fig 18];

a plurality of routing intelligence units (i.e.: intelligent disk systems), wherein each

of the plurality of the plurality of routing intelligence units includes software for

controlling a distinct subset of the plurality of networking devices [Ahuja, routers,

switches, Fig 18; the routing optimization components, col 19 line 35-col 20 line 25],

each of the plurality of routing intelligence units further including:

one processes for controlling the distinct subset of networking devices [Ahuja,

subsystem, col 17 lines 1-30]; and

one coordination processes for generating and directly exchanging routing

performance information with the plurality of routing intelligence units [Ahuja, traffic

exchanges between the NSPs, col 18 lines 10-26; propagate the routes directly, col 18

line 51].

7.   As per claim 2, Ahuja discloses the one or more processes for controlling the

distinct subset of networking devices are Border Gateway Protocol (BGP) sessions

[Ahuja, BGP, Fig 2].

8.   As per claim 3, Ahuja discloses each of the routing intelligence units is a route-

reflector client [Ahuja, a route reflector, col 17 lines 9-37].

9.   As per claim 4, Ahuja discloses each of the distinct subset of networking devices

is a route reflector to the route reflector client [Ahuja, a route reflector, col 17 lines 9-37].

10.   As per claim 5, Ahuja discloses the one or more coordination process in each of

the routing intelligence units includes BGP sessions [Ahuja, BGP, Fig 2].

11.   As per claim 6, Ahuja discloses the BGP sessions in the one or more

coordination processes of each of the routing intelligence units includes: at least one

BGP process; and at least one BGP stack, such that the at least one BGP stack

exchanges routing <u>performance information</u> between the routing intelligence unit and

the at least one BGP process, and the at least one BGP process exchanges routing

<u>performance information</u> with the plurality of routing intelligence units [Ahuja, BGP

format and policy, col 18 lines 27-67; performance table, col 5 line 27].

12.   As per claim 7, Ahuja discloses the at least one BGP stack is a route reflector

client, and the at least one BGP process is a route reflector [Ahuja, a route reflector, col

17 lines 9-37].

13.   As per claim 8, Ahuja discloses the routing performance information includes

local path performance characteristics [Ahuja, performance monitor and measurements,

col 6 lines 12-col 7 line 13].

14.   As per claim 9, Ahuja discloses the routing performance information includes

performance scores for routes [Ahuja, monitoring performance and other

characteristics, col 8 lines 42-63].

15.   As per claim 10, Ahuja discloses the performance scores are exchanged via a

Local Preference field [Ahuja, exchange the path or routing information or parameters

between Border Gateways, col 1 line 63-col 2 line 10].

16.   As per claim 11, Ahuja discloses a plurality of communication links directly

coupling the plurality of routing intelligence units [Ahuja, directly connected, col 12 lines

49-60], wherein the plurality of communication links are dedicated exclusively for

exchanging routing performance information between the plurality of routing intelligence

units [Ahuja, shared topology, col 9 lines 39-62].

17.   As per claim 12, Ahuja discloses the plurality of communication links are at least

partially comprised of physical links between the plurality of routing intelligence units

[Ahuja, weight each performance measurement and the unmeasured performance, col

9 lines 1-18].

18.   As per claim 13, Ahuja discloses the plurality of communication links are at least

partially comprised of logical links between the plurality of routing intelligence units

[Ahuja, BGP can be logically tied to each core router, col 18 lines 40-55].

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

Claims 14-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Ahuja et al [Ahuja, 6,981,055 B1] in view of Masey [20010026537 A1].

19.   As per claim 14, Ahuja discloses A method of exchanging routing <u>performance</u>

<u>information</u> amongst a plurality of decision makers (i.e.: routers), each decision maker

controlling a distinct subset of a plurality of routers, wherein the plurality of decision

makers are in communication via a network (i.e.: a mesh) <u>dedicated to exchanging</u>

<u>routing performance information</u>, the method comprising:

asserting a first plurality of preferred routes for a first plurality of prefixes to the

subset of routers [Ahuja, the BGP, Fig 2; performance inference using prefixes to

measure the number of subnetworks, col 7 lines 15-35];

concurrent with the asserting the first plurality of preferred routes [Ahuja, parallel

or concurrent asserting the first plurality of preferred routes, col 16 lines 37-54], sending

a plurality of local performance scores generated from performance measurements for

the first plurality of routes to the plurality of decision makers via the network (i.e. mesh).

However Ahuja does not explicitly detail the network as a mesh;

In the same endeavor, Masey discloses a system and method for an intelligent

routing and switching scheme utilize a routing protocol exemplified by BGP to exchange

routing information between distinct ISPs [Masey 0065] including a mesh configuration

to communicate directly with every other node in the network [Masey, 0004]

Therefore it would have been obvious to an ordinary skill in the art at the time the

invention was made to incorporate the routing between the plurality of parallel

processing nodes via a mesh network as taught by Masey into the Ahuja's apparatus in

order to utilize the routing process.

Doing so would optimize network resource location and provide the updated routing information to direct traffic over Internet.

20.   As per claim 15, Ahuja-Masey disclose receiving a second plurality of routes for a second plurality of prefixes via the dedicated mesh [Ahuja, prefixes, col 7 lines 15-35].

21.   As per claims 16,18 Ahuja-Masey disclose receiving a plurality of performance scores for the second plurality of routes [Ahuja, performance and other characteristics, col 8 lines 42-63].

22.   As per claim 17, Ahuja-Masey disclose the plurality of performance scores are included in one or more Local Preferences fields in a BGP feed [Ahuja, performance and other characteristics, col 8 lines 42-63].

23.   As per claim 19, Ahuja-Masey disclose the asserting the first plurality of preferred routes is performed via a BGP feed to the subset of routers [Ahuja, the BGP, Fig 2; performance inference using prefixes to measure the number of subnetworks, col 7 lines 15-35].

24.   As per claim 20, Ahuja-Masey disclose the plurality of local performance scores are sent via a BGP feed to the dedicated mesh [Masey, a mesh configuration to communicate directly with every other node in the network, 0004].

25.   As per claim 21, Ahuja-Masey disclose the plurality of communication links are at least partially comprised of physical links between the plurality of routing intelligence units [Masey, a mesh configuration to communicate directly with every other node in the network, 0004].

26.   As per claim 22, Ahuja-Masey disclose the plurality of communication links are at least partially comprised of logical links between the plurality of routing intelligence units [Ahuja, BGP can be logically tied to each core router, col 18 lines 40-55].

27.   As per claim 23, Ahuja-Masey disclose A communications back-channel for coordinating routing decisions, the communications back channel comprising:

a plurality of routers [Ahuja, the number of routers, col 9 line 61];

a plurality of routing intelligence units, wherein each of the plurality of routing intelligence units includes software for controlling a distinct subset of the plurality of routers [Masey, an intelligent routing and switching scheme, 0019], wherein each of the plurality of routing intelligence units further includes:

one or more processes for controlling the distinct subset of routers [Ahuja, subset, col 10 line 18]; and

one or more coordination processes for exchanging performance information among the plurality of routing intelligence units [Masey, exchange information, 0065]; and

a mesh directly coupling each of the plurality of routing intelligence units to the remaining routing intelligence units, the plurality of routing intelligence units programmed to exchange only performance information over the mesh [Masey, exchange information, 0065].

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thong H. Vu whose telephone number is 571-272-3904. The examiner can normally be reached on 6:00-3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Caldwell can be reached on 571-272-3868. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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